ISSN (print) 0093-4666 © 2013. Mycotaxon, Ltd. ISSN (online) 2154-8889

MYCOTAXON

http://dx.doi.org/10.5248/123.479

Volume 123, pp. 479–489 *January–March 2013*

New records of corticolous lichens from Vietnam

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Abstract —Eight new records of crustose lichens are reported from Dak Lak, Dak Nong, and Vinh Phuc provinces in Vietnam. Descriptions of *Diorygma hieroglyphicum*, *Letrouitia leprolytoides*, *L. transgressa*, *Ocellularia perforata*, *Opegrapha robusta*, *Platythecium colliculosum, P. dimorphodes,* and *Syncesia farinacea* include morphological, anatomical, chemical characters, and comparisons with similar taxa.

Key words—*Graphidaceae*, *Letrouitiaceae*, *Roccellaceae*, evergreen forest, tropical

Introduction

A recent survey suggested that lichen species richness increases towards lower latitudes and that tropical ecosystems harbor about half of the total lichen species known worldwide (Lücking et al. 2011). Vietnam, part of the Eastern palaeotropical region, provides a climate suitable for lichens, particularly crustose, corticolous, and foliicolous species (Nguyen et al. 2010, 2011). Sporadic surveys and lichen collections from different regions of this country indicate that the majority of its land is still unexplored for its lichen diversity. Aptroot & Sparrius (2006) provided the first checklist of Vietnamese lichens, but no update has been published since. However, recent publications (Giao 2009; Nguyen et al. 2010, 2011) on foliose and foliicolous lichens in Vietnam document the potential richness in lichens in this region, and suggest that many more species have not yet been recorded.

We report here eight corticolous species representing *Diorygma*, *Letrouitia*, *Ocellularia*, *Opegrapha*, *Platythecium*, and *Syncesia* as new for Vietnam. Species in four of these genera have previously been recorded from Vietnam: *Diorygma tinctorium* Eschw., *Letrouitia domingensis* (Pers.) Hafellner & Bellem., *Ocellularia allosporoides* (Nyl.) Patw. & C.R. Kulk., *O. asiatica* (Vain.) Hale,

O. dolichotata (Nyl.) Zahlbr., *O. papillata* (Leight.) Zahlbr., *O. tenuis* (Hale) Hale, *O. thelotremoides* (Leight.) Zahlbr, *Opegrapha filicina* (Mont.) Müll. Arg., *Op. fuscovirens* Müll. Arg., *Op. varia* var. *heterocarpa* Müll. Arg., and *Op. vegae* R. Sant. No species of *Platythecium* and *Syncesia* were recorded in the checklist of Vietnamese lichens (Aptroot & Sparrius 2006).

Materials and methods

Lichen specimens were collected during April 2012 from Chu Yang Sin and Yok Don National Parks in Dak Lak province, and Dray Nur Waterfall in Dak Nong province in the central highlands and Tam Dao National Park in Vinh Phuc province in northern Vietnam. The specimens were conserved in the lichen herbarium of the Korean Lichen Research Institute, Suncheon, South Korea (KoLRI).

The specimens were examined using standard light microscopy techniques. Sections of thalli and ascocarps were mounted in water, 10% KOH, lactophenol blue, and Lugol's solution. All measurements were made in water. Chemical constituents were identified by spot color reaction tests and thin layer chromatography (TLC; solvent system C) following published protocols (Orange et al. 2010). Measurements of hymenium, exciple, asci, and ascospores were made on 10–15 thin, hand-cut apothecial sections. The following literature was used for species identification: Aptroot & Sparrius 2006; Kalb et al. 2004; Tehler 1997; Staiger 2002; Frisch et al. 2006; Archer 2009; Elix 2009; Ertz 2009; Mangold et al. 2009; Rivas Plata et al. 2010; Joshi et al. 2011; Nguyen et al. 2010, 2011.

Taxonomy

Diorygma hieroglyphicum (Pers.) Staiger & Kalb, Symb. Bot. Upsal. 34(1): 1151, 2004. Pl. 1a

Thallus corticolous, epiphloeodal, ecorticate, ≤200 µm thick, ± verrucose due to emerging ascocarps, marginally smooth, dull, whitish to pale green; prothallus distinct, whitish; algal layer well developed, continuous; medulla distinct, white. Vegetative propagules absent. Ascocarps numerous, lirellate, immersed, straight to bend, branched, stellate, ≤2 × 0.25 mm; disc exposed, flat to concave, pale brown to brown, densely white pruinose. Thalline margin prominent, 90–100 µm wide. Proper exciple hyaline to pale brown or brown, divergent, poorly developed, 15–20 µm thick. Epihymenium pale to brownish, granular, crystalline, 10–20 µm high. Hymenium hyaline, not inspersed (but disintegrated ascospore locules sometimes have the appearance of large oil droplets), 100–135 µm high. Subhymenium hyaline to pale at the base, 30–35(–50) µm high. Paraphyses simple with branched anastomosing apices, 1–2 µm thick. Asci clavate, 1-spored, 90–130 µm, I–. Ascospores hyaline, muriform, ellipsoidal, with round ends, 65–85 × 17–29 µm, I+ blue.

Chemistry—Thallus K+ yellow orange, Pd+ reddish, C–, KC–. Stictic acid detected with TLC.

Distribution & ecology—This corticolous species is widely distributed in the Eastern palaeotropical region. It is known from Australia, Cameroon, Tanzania, Indonesia, Singapore, Papua New Guinea, Philippines, New Caledonia, Vanuatu, Solomon Islands, and Norfolk Island (Archer 2009; Kalb et al. 2004). In Vietnam, the species was collected on trunks of trees in an evergreen forest at an altitude of about 1000 m.

Specimen examined – **VIETNAM. Vinh Phuc province:** Tam Dao National Park, 21°27′10.8″N 105°38′58.2″E, alt. 987 m, on tree trunk, 25 April 2012, Hur, Oh & Nguyen VN120351 (KoLRI).

Remarks—*Diorygma hieroglyphicum* resembles *D. pruinosum* (Eschw.) Kalb et al. in having open, pruinose apothecial discs, 1-spored asci, and muriform ascospores, but *D. pruinosum* contains protocetraric acid in the thallus whereas *D. hieroglyphicum* contains stictic acid.

Letrouitia leprolytoides S.Y. Kondr. & Elix, Australas. Lichenol. 62: 17, 2008. Pl. 1b

Thallus corticolous, epiphloeodal, corticate, thin (ca. 150 µm thick) inconspicuous to well developed, pale greenish, greenish yellow to pale yellow or orange; algal layer well developed, continuous; medulla indistinct to endophloeodal, white, crystalline. Isidia coralloid, spread throughout the thallus. Ascocarps numerous, apothecioid, biatorine (but appearing lecanorine), ± rounded to more often irregular, solitary to marginally fused, emergent, sessile, orange, ≤2.5 mm diam.; disc exposed, ± flat, epruinose, reddish to dark brown, entire, ca. 2 mm diam.; margin prominent, smooth, shiny, brighter than the disc, orange, entire, ≤0.3 mm. Thalline margin reduced to absent. Proper exciple hyaline to pigmented, made up of radiating hyphae, ≤130 µm thick. Epihymenium orange brown to brownish, pigmented, 10–15 µm high. Hymenium hyaline, not inspersed, ≤70–100 µm high. Paraphyses slightly branched, ± interwoven or anastomosing, 1–1.5 µm thick. Hypothecium hyaline to slightly reddish in lower side, ≤70 µm high. Asci clavate, 8-spored, 70–95(–100) ×13–16 µm, outer wall I+ blue. Ascospores hyaline, transversely septate, fusiform to oblong or ellipsoidal, with narrowly rounded to subacute ends, non-halonate, 20–27 × 6–12 µm, with 5–9 locules; locules ± rounded to slightly angular, ± lentiform, septa moderately thick, I– .

Chemistry—Thallus K+ purple, Pd–, C–, KC–; apothecia K+ purple violet. Anthraquinones detected with TLC (greenish gray spot at Rf 5 and yellow at 7).

Distribution & ecology—*Letrouitia leprolytoides* is common in monsoon forests in Asia and has a pantropical distribution (Kondratyuk & Elix 2008; Elix 2009). In Vietnam, it was reported from the tree trunks in evergreen forests at 300–800 m altitude.

Specimens examined – **VIETNAM. Dak Nong province:** Dray Nur Waterfall, 12°33′06.3″N 107°53′19.6″E, alt. 371 m, on tree trunk, 19 April 2012, Hur, Oh & Nguyen

VN120006 (KoLRI). **Dak Lak province:** Yok Don National Park, 12°51′20.0″N 107°45′58.1″E, alt. 760 m, on tree trunk, 22 April 2012, Hur, Oh & Nguyen VN120205, VN120212, VN120218 (KoLRI).

Remarks—This species can be distinguished from most other *Letrouitia* species by its isidiate thallus. It resembles *L. leprolyta* (Nyl.) Hafellner and *L. corallina* (Müll. Arg.) Hafellner, which also have an isidiate thallus, but *L. leprolyta* has erumpent to flat, wart-like isidia and *L. corallina* has flattened and unbranched isidia and 1–2-spored asci.

Letrouitia transgressa (Malme) Hafellner & Bellem.,
Nova Hedwigia 35: 710, 1983. Pl. 1C

Thallus corticolous, epiphloeodal, corticate, thin, 55–80 µm, smooth to verrucose, pale green to olive green or olivaceous; prothallus distinct, whitish; algal layer well developed, continuous; medulla indistinct to white, crystalline. Vegetative propagules not seen. Ascocarps numerous, apothecioid, biatorine (but appearing lecanorine), round to irregular, solitary to marginally fused, emergent, sessile, ≤1.9 mm in diam.; disc exposed, flat to convex, epruinose, reddish brown to brown, ≤1.7 mm in diam; margin prominent, smooth, shiny, paler than the disc, pigmented, ca. 0.2 mm thick. Thalline margin absent. Proper exciple hyaline to pigmented, made up of radiating hyphae, 90–150 µm thick. Epihymenium orange brown, pigmented, 10–25 µm high. Hymenium hyaline, not inspersed, 70–125 µm high. Hypothecium reddish brown, ≤105 µm high. Paraphyses thin, septate, rarely branched and anastomosed, conglutinate, 1–1.5 µm thick. Asci clavate, 2–4(–8)-spored, 100–135 × 20–27 µm, I–. Ascospores hyaline to pale when mature, primarily 6–9 transversely septate, becoming progressively submuriform (1–3 vertical septa), ellipsoidal, with round to subacute ends, non halonate, 35–40(–50) × 13–17(–20) µm, I–.

Chemistry—Thallus K–, Pd–, C–, KC–; apothecia K+ purple. Anthraquinones detected with TLC (greenish gray spot at Rf 5 and yellow at 7).

Distribution & ecology— This corticolous species is common in Africa, Asia, Australia, New Caledonia, Papua New Guinea, and South America (Hafellner 1983; Elix 2009). In Vietnam, it is widespread on trees in evergreen forests at an altitude 600–1100 m.

Specimens Examined – **VIETNAM. Dak Lak Province:** Chu Yang Sin National Park, 12°27′57.0″N 108°20′34.9″E, alt. 780 m, on tree trunk, 21 April 2012, Hur, Oh & Nguyen VN120272 (KoLRI); 12°28′04.4″N 108°20′39.0″E, alt. 622 m, on tree trunk, 20 April 2012, Hur, Oh & Nguyen VN120286 (KoLRI); 12°28′12.3″N 108°20′59.9″E, alt. 763 m, on tree branch, 20 April 2012, Hur, Oh & Nguyen VN120242 (KoLRI). **Vinh Phuc province:** Tam Dao National Park, 21°27′21.7″N 105°39′00.8″E, alt. 1092 m, on tree trunk, 25 April 2012, Hur, Oh & Nguyen VN120333 (KoLRI).

Remarks—*Letrouitia transgressa* is similar to *L. parabola* (Nyl.) R. Sant. & Hafellner in having submuriform ascospores at maturity but differs in having

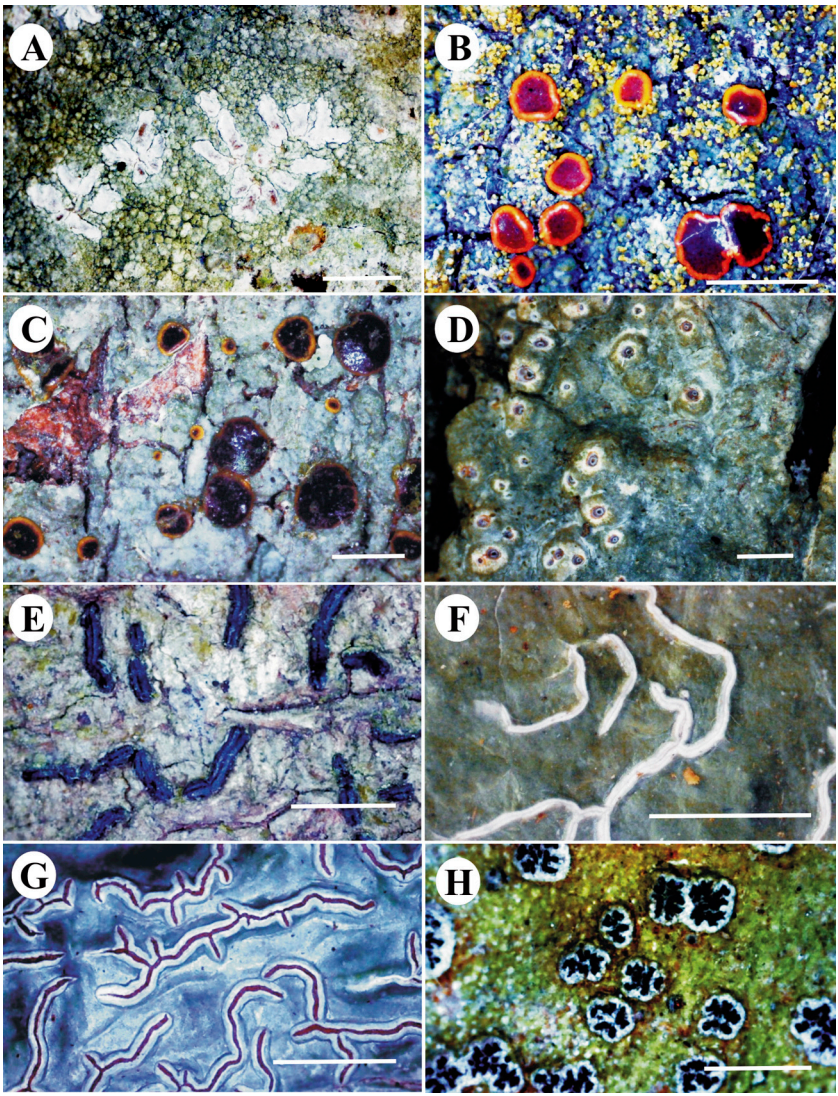

Plate. 1. New records. A. *Diorygma hieroglyphicum*. B. *Letrouitia leprolytoides*. C. *Letrouitia transgressa*. D. *Ocellularia perforata*. E. *Opegrapha robusta*. F. *Platythecium colliculosum*. G. *Platythecium dimorphodes*. H. *Syncesia farinacea*. Scale bars: A, B, G = 3 mm; C = 1.5 mm; D, E = 1 mm; F = 10 mm; H = 5 mm.

ascospores with transverse septation and lens-shaped lumina in the primary stage. In contrast, the ascospores of *L. parabola* have a spiral septation. Moreover, *L. parabola* has slightly smaller ascospores with fewer septa (6–8 locules).

Letrouitia Hafellner & Bellem. comprises ca. 18 species world-wide. Most *Letrouitia* species have similar morphological and chemical features and have been segregated according to ascospore size and septation (Hafellner 1983; Elix 2009). Generally three septation types are found in this genus: transverse, spiral, and muriform. More frequently, ascospores with either transverse or spiral septation become (sub-)muriform at maturity. As the taxonomic value of ascospore septation in lichenized fungi has been questioned (Salisbury 1978; Galloway & Guzmán 1988), molecular data is needed for the revision of *Letrouitia*.

Ocellularia perforata (Leight.) Müll. Arg., Hedwigia 31: 284, 1892. Pl. 1d

Thallus corticolous, epiphloeodal, corticate, ≤400 µm thick, continuous to ± verrucose, smooth to rough, dull to ± glossy, greenish gray or pale to olivaceous green; algal layer well developed, continuous; medulla thin to indistinct, white, with small to moderately large, clustered or scattered calcium oxalate crystals. Vegetative propagules absent. Ascocarps numerous and conspicuous, porinoid, becoming apothecioid, hemispherical, ± rounded to irregular at maturity, solitary to fused, immersed to ± raised, rarely strongly emergent, ≤1 mm diam.; disc with the columella visible at maturity, epruinose to slightly pruinose, flesh-colored to pale or brownish; pore formed by the rim of the thalline margin, round to irregular at maturity, entire, to 0.5 mm diam. Thalline margin has the same color as the thallus or slightly paler, thin to thick, ± incurved. Proper exciple fused, brownish to dark brown, ca. 120 µm thick. Epihymenium hyaline, with grayish or brownish granules, ≤15 µm high. Hymenium hyaline, not inspersed, ≤150 µm high. Paraphyses straight to bent, unbranched, with slightly thickened tips, ± interwoven, moderately to distinctly conglutinated, 1–1.5 µm thick. Columellar structure well developed at maturity, entire, brownish to carbonized, ± covered by grayish or brownish granules, to 300 µm thick. Subhymenium indistinct to hyaline. Asci clavate, 8-spored, (75–)100–120 µm, I–. Ascospores hyaline, transversely septate, oblong to ellipsoidal, with ± rounded to narrowly rounded or subacute ends, thick walled, non halonate, 20–32 × 6–9 µm, with 8–10 locules, I+ blue violet; locules ± rounded to slightly angular, oblong to lentiform, with hemispherical to conical end cells.

Chemistry—Thallus K+ yellowish brown, Pd+ orange red, C–, KC–. Protocetraric acid detected with TLC.

Distribution & ecology— *Ocellularia perforata* has a pantropical and southern-temperate distribution (Mangold et al. 2009) and has been reported from rainforests. In Vietnam, it was collected from tree trunks in evergreen forests at an altitude of ca.1000 m.

Specimen examined – **VIETNAM. Vinh Phuc province:** Tam Dao National Park, 21°27′21.7″N 105°39′00.8″E, alt. 1092 m, on tree, 25 April 2012, Hur, Oh & Nguyen VN120323 (KoLRI).

Remarks—*Ocellularia perforata,* which is highly morphologically variable, is a widespread species. The morphologically similar *O. papillata* and *O. terebrata* (Ach.) Müll. Arg., can be distinguished by their thallus chemistry: the thallus of *O. terebrata* produces psoromic acid, whereas *O. papillata* lacks secondary metabolites.

Opegrapha robusta Vain., Bot. Tidsskr. 29: 137, 1909. Pl. 1e

Thallus corticolous, endo- to epiphloeodal, ecorticate (cortex not clearly distinguishable in section), thin (≤150–200 μm thick), ± inconspicuous, spread in large patches, dull to slightly glossy, pale-green to green, olive green or dark brownish; prothallus distinctly dark brown to black; algal layer well developed, continuous; medulla indistinct, white. Vegetative propagules absent. Ascocarps lirellate, numerous and evenly distributed on the thallus; lirellae simple to slightly furcate, sessile, black, epruinose, straight to curved, ± flexuose, reaching ≤7 × 0.25 mm. Thalline exciple basal to absent. Proper exciple completely carbonized, convergent, K+ olivaceous, entire, 130–160 μm thick. Epihymenium indistinct to pale. Hymenium hyaline, not inspersed, gelatinous, ca. 150 μm high. Hypothecium hyaline to yellowish, ≤25 μm high. Paraphyses richly anastomosing, 1–1.5 μm thick. Asci ellipsoid to clavate, 8-spored, 80–115 × 20–24 μm, K/I+ blue apical ring distinct. Ascospores hyaline, fusiform, transversely 9–15-septate, 40–70 ×5–9 μm (including a perispore ≤2 μm thick), not constricted at septa, I–.

Chemistry—Thallus K–, Pd–, C–, KC–. Confluentic acid detected with TLC.

Distribution & ecology—*Opegrapha robusta* is known from Africa (Gabon, Zaire), Asia (Indonesia, Malaysia, Papua New Guinea, The Philippines, Thailand), Australia, and Solomon Islands (Ertz 2009). In Vietnam, it was recorded on trees in dense, tropical evergreen forests at an altitude of 600–800 m.

Specimens examined – **VIETNAM. DakLak province:** Chu Yang Sin National Park, 12°28′04.4″N 108°20′39.0″E, alt. 622 m, on tree trunk, 20 April 2012, Hur, Oh & Nughen VN120290 (KoLRI); 12°27′57.0″N 108°20′34.9″E, alt. 780 m, on tree trunk, 21 April 2012, Hur, Oh & Nughen VN120275 (KoLRI).

Remarks—*Opegrapha robusta* is well separated from the two other similar species *Op. prosodea* Ach. and *Op. viridis* (Ach.) Behlen & Desberger in having robust lirellate apothecia and confluentic acid. *Opegrapha prosodea* and *Op. viridis* have smaller apothecia (1–3 mm long) and lack secondary compounds.

Platythecium colliculosum (Mont.) Staiger, Biblioth. Lichenol. 85: 380, 2002. Pl. 1f

Thallus corticolous, epiphloeodal, corticate, ≤120 μm thick, continuous, smooth or irregularly to scarcely verrucose (due to the substrate texture),

± glossy, olive to grayish green; prothallus distinct, white; algal layer well developed, continuous; medulla distinct, white. Vegetative propagules absent. Ascocarps lirellate, numerous and scattered on the thallus; lirellae emergent, straight to bend, radially to irregularly branched, with acute ends, 10–20 × 0.25 mm (but the frequent branching increases the length of lirellae ≤150 mm); labia closed to open, white, crenate in mature apothecia, ≤133 µm thick; disc reddish brown to brown (not well exposed in the examined specimen). Thalline margin complete, 30–35 µm thick. Proper exciple indistinct to brownish, ± striate. Epihymenium brownish, crystalline to granular, 9–10 µm high, I+ blue. Hymenium hyaline, not inspersed, 80–90 µm high, I+ slightly blue. Subhymenium well developed, hyaline to pale yellow, ≤45 µm high, I–. Paraphyses simple at the base, but apically irregularly branched, 1–2 µm thick. Asci clavate, 8-spored, 60–70 × 12–15 µm, I–. Ascospores hyaline, submuriform, ellipsoidal to ovoid, transversely 4-locular with one vertical septum in middle locules, 9–13 × 6–8 µm, I+ blue violet.

Chemistry—Thallus K+ red, Pd+ yellow orange, C–, KC–. Salazinic acid detected with TLC.

Distribution & ecology—*Platythecium colliculosum* occurs most commonly on bark. It is distributed mostly in tropical and subtropical regions of the world. In Vietnam, the species was reported from trees in an evergreen forest at an altitude between700–800 m.

Specimen examined – **VIETNAM. Dak Lak province:** Chu Yang Sin National Park, 12°27′57.0″N 108°20′34.9″E, alt. 780 m, on tree trunk, 21 April 2012, Hur, Oh & Nguyen VN120135 (KoLRI).

Remarks—The Vietnamese specimen of *P. colliculosum* shows a slight chemical variation. Staiger (2002) described the species as producing both salazinic and protocetraric acids, but we detected only salazinic acid in our material. The morphologically similar species *P. dimorphodes* differs in containing norstictic acid in the thallus.

Platythecium dimorphodes (Nyl.) Staiger, Biblioth. Lichenol. 85: 383, 2002. Pl. 1G

Thallus corticolous, epiphloeodal, corticate, 200–500 µm thick, smooth to uneven, irregularly to scarcely verrucose, shiny to ± matt, grayish-green to greenish; algal layer well developed; medulla distinct, white. Vegetative propagules absent. Ascocarps lirellate, numerous, emergent, straight to bend, irregularly branched, 10 × 0.25–0.7 mm; labia open, white, crenate in mature apothecia; disc reddish brown to brown, exposed, flat to slightly concave, occasionally with a thin whitish pruina. Thalline margin complete, ± undulating, 50–75 µm thick. Proper exciple pale brown to brown, simple to ± divided laterally in mature apothecia. Epihymenium brownish, crystalline to granular, 12–14 µm high, I–. Hymenium hyaline, not inspersed, 80–90 µm

high, I–. Subhymenium well developed, hyaline to yellowish, 40–45 µm high, I–. Paraphyses± anastomosed, apically irregularly branched, 1–1.5 µm thick. Asci clavate, 8-spored, 70–80 × 13–15 µm, I–. Ascospores hyaline, ellipsoidal to ovoid, submuriform, with three transverse septa and one vertical septum in the middle locule, 15–17 × 7–8 µm, I+ blue violet.

Chemistry—Thallus K+ yellowish, Pd+ yellow orange, C–, KC–. Norstictic acid detected with TLC.

Distribution & ecology—The species is common in the Eastern palaeotropical countries and is distributed in tropical and subtropical regions of Australia, Malaysia, Java, Papua New Guinea, Philippines, and Sri Lanka (Staiger 2002; Archer 2009). In Vietnam, it was reported from trees in an evergreen forest at an altitude of 600–800 m.

Specimens examined – **VIETNAM. Dak Lak Province:** Chu Yang Sin National Park, 12°27′57.0″N 108°20′32.9″E, alt. 780 m, on tree trunk, 20 April 2012, Hur, Oh & Nguyen VN120123 (KoLRI); 12°27′57.0″N 108°20′34.9″E, alt. 780 m, on tree trunk, 21 April 2012, Hur, Oh & Nguyen VN120176 (KoLRI); 12°28′04.4″N 108°20′32.0″E, alt. 622 m, on tree trunk, 20 April 2012, Hur, Oh & Nguyen VN120284 (KoLRI).

Remarks—*Platythecium colliculosum,* which superficially resembles *P. dimorphodes*, differs in containing salazinic and protocetraric acids as thallus compounds. *Platythecium dimorphodes,* which has immature entire labia and apothecial disc color similar to those in *P. grammitis* (Fée) Staiger and *P. leiogramma* (Nyl.) Staiger, differs in its lack of secondary metabolites. The Vietnamese collections differ from *P. dimorphodes* as originally described (Staiger 2002) in lacking isidia-like structures.

Syncesia farinacea (Fée) Tehler, Flora Neotropica, Monogr. 74: 25, 1997. Pl. 1h

Thallus corticolous, epiphloeodal, ecorticate, 100–200 µm thick, tomentose to dense, coherent, homoiomerous, water-absorbent, ± rimose, smooth to slightly verrucose, slightly pruinose, creamy-white to ± greenish, UV+ cream to yellowish; prothallus dark brown; calcium oxalate crystals absent; surface gel absent; medulla usually indistinct; hypomedullary plectenchyma absent. Ascomata numerous, pseudo-monocarpocentral, sessile with constricted base, ≤3 mm diam.; discs flat to convex, ≤0.5 mm diam., tomentum sometimes present, but usually absent. Thalline margin at the same level than the disc, ecorticate, but with algae. Proper exciple ± inconspicuous to ca. 50 µm thick. Epihymenium dark brown, hyphae richly branched, not separable, verrucose, brownish, 13–20 µm high, I+ intense blue, KI+ blue. Hymenium hyaline, clear, 70–100 µm high, I+ blue. Paraphyses rather lax, 2–3 µm thick, branched, I–, KI+ blue. Hypothecium dark brown, ± carbonaceous, extending down to the substrate, 200–400 µm high, K+ olive green, I–, KI–. Asci, clavate, 8-spored, 60–70 × 10–15 µm, I+ blue. Ascospores hyaline, transversely 3-septate, fusiform, ± curved, 25–30 × 3–5 µm, I–.

Chemistry—Thallus K+ reddish, Pd–, C–, KC–. Traces of protocetraric and roccellic acids detected with TLC.

Distribution & ecology—This variable species occurs mostly on bark of trees and shrubs but also sometimes on rocks. Reported from both the northern and southern hemispheres, *S. farinacea* is known from Mexico, the West Indies, Colombia, Venezuela, and Brazil (Tehler 1997). In Vietnam, the taxon was found growing luxuriantly over tree trunks at an altitude between 600–800 m in an evergreen forest.

Specimens examined – **VIETNAM. Dak Lak province:** Chu Yang Sin National Park, 12°27′57.0″N 108°20′34.9″E, alt. 780 m, on tree trunk, 21 April 2012, Hur, Oh & Nguyen VN120175, VN120177 (KoLRI); 12°28′04.4″N 108°20′39.0″E, alt. 622 m, on tree trunk,21 April 2012, Hur, Oh & Nguyen VN120285 (KoLRI).

Remarks—We identify our specimens as *Syncesia farinacea,* despite thallus color and texture differences from the type description that may be due to different environmental conditions. *Syncesia graphica* (Fr.) Tehler resembles *S. farinacea* but differs in having lecanoric acid (C+ red thallus) and erythrin as secondary compounds; moreover, in *S. farinacea* the synascomata are more rounded and constricted at the bases and the ascospores are somewhat smaller. Another similar species, *S. effusa* (Fée) Tehler, can be distinguished by its UV+ bright light yellow thallus and the production of atranorin as an additional compound. *Syncesia farinacea* can sometimes be confused with *S. rhizomorpha* Tehler, which also has rhizomorph-like structures but which is distinguished by smaller ascospores, calcium oxalate crystals in the thalline margin, and schizopeltic acid in the thallus.

Acknowledgments

This work was supported by a grant from the National Research Foundation of Korea (#2011-0031494). Authors are grateful to the reviewers Dr. Cécile Gueidan and Dr. Khwanruan Papong for their valuable comments on manuscript. Santosh Joshi also thanks Dr. Andreas Aptroot for providing the lichen checklist of Vietnam, and Dr. László Lőkös for helpful suggestions.

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